REMARKS

The Final Office Action dated November 20, 2006 has been received and considered. In this response, claims 33-41 have been canceled without prejudice or disclaimer. Support for the amendments may be found in the specification and drawings as originally filed. Reconsideration of the outstanding rejection in the present application is respectfully requested based on the following remarks.

Non-Statutory Subject Matter Rejection of Claims 42, 43, and 45-48

At page 2 of the Office Action, claims 42, 43, and 45-48 are rejected under 35 U.S.C. § 101. This rejection is respectfully traversed.

The Office Action asserts claims 42, 43, and 45-58 do not meet the requirements of 35 U.S.C. § 101 because they allegedly "have improper language regarding the computer readable medium" and the Office cites pages 50-57 of the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (hereinafter, "the Interim Guidelines) in support of this assertion. *Office Action*, p. 2. The Applicant respectfully disagrees.

As an initial matter, it is noted that the Office Action fails to specify the particular language of claims 42, 43, and 45-48 which the Office finds objectionable and why it is objectionable. Thus, the Office Action fails to meet its burden in establishing a *prima facie* case in establishing this rejection. Nevertheless, the Applicant respectfully submits that the language of these claims is proper, contrary to the assertions of the Office Action. As a first issue, 35 U.S.C. § 101 is silent as to specific language for a claim directed to a computer readable medium. Likewise, a review of the Interim Guidelines, particularly pages 50-57 as cited by the Office, fails to reveal any particular claim language that is required, or alternately prohibited, in order for a claim directed to a computer readable medium to be patentable subject matter under § 101. Rather, the Interim Guidelines provide that subject matter claimed as descriptive material *per se* is non-statutory, whereas "when functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." *See Interim Guidelines*, p. 50 (emphasis added). With respect to computer programs, the Interim Guidelines provides that "In contrast [to a computer program

claiming a computer listing per se], a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." *Id.*, p. 53. Further, the Interim Guidelines provide that "[c]omputer programs are often recited as part of a claim. USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim." *Id.*, p. 53.

Turning to independent claim 42, this claim recites the features of

one or more data processors;

memory operably coupled to said one or more processors; and

a set of instructions capable of being stored in said memory and executed by said one or
more processors, said set of instructions to manipulate said one or more
processors to:

receive a display data;

determine if a predetermined criteria is met by a first representation of the display
data, wherein the first representation of the display data includes a first
plurality of display streams to be transmitted to a first plurality of display
devices;

select a first display stream of the first plurality of display streams when it is
determined that the first representation of the display data does not meet
the predetermined criteria; and

compress the first display stream in response to selecting the first display stream.

Thus, as a first issue, the subject matter of claim 42 is directed to a system comprising "one or more data processors" and "memory operably coupled to said one or more processors," and thus the inclusion of the claimed set of instructions in an otherwise statutory machine (i.e., the claimed system of one or more data processors and memory). Thus, claim 42 "remains statutory irrespective of the fact that a computer program [set of instructions] is included in the claim." *See Id*., p. 53. As a second issue, the set of instructions recited by claim 42 define the

structural and functional interrelationship between the set of instructions, the claimed one or more processor, and the claimed memory, and thus is statutory subject matter. *See Interim Guidelines*, p. 53.

Independent claim 43 recites the features of:

A computer readable medium tangibly embodying a set of instructions to manipulate one or
> more data processors to:
>
> receive a display data;
>
> determine if a predetermined criteria is met by a first representation of the display data,
>> wherein the first representation of the display data includes a first plurality of
>> display streams to be transmitted to a first plurality of display devices;
>
> select a first display stream of the first plurality of display streams when it is determined
>> that the first representation of the display data does not meet the predetermined
>> criteria; and
>
> compress the first display stream in response to selecting the first display stream.

As stated by the Interim Guidelines, "[w]hen functional descriptive material [i.e., a computer program or set of instructions] is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." *Id.*, p. 50; *see also Id*., p. 53 ("a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory"). Thus, claim 43 is statutory as it recites a set of instructions (e.g., a program) embodied (e.g., recorded) on a computer readable medium and thus is structurally and functionally interrelated to the medium.

For at least the reasons that the Office has failed to cite any binding rule, law, or judicial holding that establishes the language of claims 42 and 43 as improper for a computer readable medium-type claim and further that the language of claims 42 and 43 is in fact proper, it is respectfully submitted that the non-statutory subject matter rejection of claims 42 and 43 and

their dependent claims is improper at this time. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Non-Statutory Subject Matter Rejection of Claims 1, 2, 7, 9-41, 44, and 49-54

At page 2 of the Office Action, claims 1, 2, 7, 9-41, 44, and 49-54 are rejected under 35 U.S.C. § 101 as allegedly having no tangible, concrete, and useful result. This rejection is respectfully traversed.

To be eligible for patent protection, the claimed invention as a whole must accomplish a practical application; i.e., it must produce a "useful, concrete and tangible result." *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998). The Interim Guidelines provide:

> If the examiner determines that the claim does not entail the transformation of an article, then the examiner shall review the claim to determine if the claim provides a practical application that produces a useful, tangible and concrete result. In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete." The claim must be examined to see if it includes anything more than a § 101 judicial exception. If the claim is directed to a practical application of the § 101 judicial exception producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. § 101.

Interim Guidelines, p. 20 (emphasis added).

Reviewing the subject matter of independent claims 1, 37, and 49, it is clear that the inventions of these claims result in useful, tangible and concrete results. To wit, claim 1 presently recites the feature of "compressing the first display stream . . . ", claim 37 recites the similar features of "reducing an amount of data associated with the first multimedia channel . . .", and claim 49 recites the features of "compressing at least one of the multimedia channels in the data stream . . . ." Thus, claims 1, 37 and 49 each produces a useful result, namely a compressed display stream (or a multimedia channel having a reduced amount of data associated with it), which the wide-use of compressed video streams (e.g., the MPEG video streams found in digital cable transmissions and DVD playback) attest to its usefulness. Further, the resulting compressed display stream/multimedia channel is concrete in that it is predictable and

repeatable. *See Interim Guidelines*, p. 22. Further, the resulting compressed display stream/multimedia channel is not abstract and exists in a machine, which is tangible, and thus the resulting compressed display stream is tangible as a result of this association. *See Interim Guidelines*, p. 21-22. Thus, the results achieved by the claimed inventions of claims 1, 37, and 49, namely a compressed display stream/multimedia channel having reduced data, are "useful, tangible, and concrete" and thus claims 1, 37, and 49 meet the statutory requirement of § 101. Accordingly, the non-statutory patentable subject matter of claims 1, 37, and 49 and their dependent claims is improper. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Obviousness Rejection of Claims 1-2, 7, 9, 34, and 42-43

At page 3 of the Office Action, claims 1-2, 7, 9, 34, and 42-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Banks (U.S. Patent No. 6,139,197) in view of Gupta (U.S. Patent No. 6,985,966). This rejection is respectfully traversed.

Independent claim 1 presently recites the features of:

determining if a predetermined criteria is met by a first representation of the display data, wherein the first representation of the display data includes a first plurality of display streams to be transmitted to a first plurality of display devices;
selecting a first display stream of the first plurality of display streams when it is determined that the first representation of the display data does not meet the predetermined criteria; and
compressing the first display stream in response to selecting the first display stream.

Independent claims 42 and 43 presently recite the features of:

a set of instructions to manipulate said one or more processors to:
determine if a predetermined criteria is met by a first representation of the display data, wherein the first representation of the display data includes a first plurality of display streams to be transmitted to a first plurality of display devices;
select a first display stream of the first plurality of display streams when it is determined that the first representation of the display data does not meet the predetermined criteria; and
compress the first display stream in response to selecting the first display stream.

With respect to claims 1, 42, and 43, the Office Action acknowledges that Banks "fails to disclose the plurality of streams being sent to a plurality of display devices" but asserts that because Banks discloses "sending a stream from a server to a client via a network," it would have been obvious "to send a plurality of streams to a plurality of clients since a network hosts a plurality of clients." *Office Action*, p. 3. The Office Action further acknowledges "Banks fails to disclose selecting a display stream as claimed." *Id.* The Office therefore turns to Gupta as allegedly teaching

> prior art computer systems have a problem keeping streams synchronized . . . To help alleviate this problem, Gupta discloses 'selecting a first display stream when it is determined that the first representation of the display data does not meet the predetermined criteria' . . . Therefore, it would have been obvious . . . to take the apparatus disclosed by Banks and add the processing taught by Gupta in order to obtain an apparatus that operates more efficiently by keeping data sent to a client synchronized.

Id., p. 4.

The Applicant respectfully disagrees. As a first issue, the teachings of Banks and Gupta, even if combined as proposed, would fail to disclose or suggest at least the features of "selecting a first display stream of the first plurality of display streams when it is determined that the first representation of the display data does not meet the predetermined criteria" and "compressing the first display stream in response to selecting the first display stream" as recited by claim 1 and the similar features of "select a first display stream of the first plurality of display streams when it is determined that the first representation of the display data does not meet the predetermined criteria" and "compress the first display stream in response to selecting the first display stream" as recited by claims 42 and 43. As noted above, Banks fails to disclose a plurality of display streams, much less selecting a display stream of a plurality of display streams and compressing the selected display stream in response to its selection as provided by the claims. Likewise, while Gupta teaches selecting a stream from a plurality of streams, it is for the purpose of selecting a time shifted stream to alter the timeline presentation of the media stream for resynchronization purposes and Gupta does not disclose, or even suggest, that the select stream of the plurality of streams is then compressed in response to its selection. Thus, as neither Banks nor Gupta discloses, or suggests, the compression of a display stream that has been selected from a plurality of display streams, the proposed combination of Banks and Gupta necessarily fails to

disclose or even suggest features of "selecting a first display stream of the first plurality of display streams when it is determined that the first representation of the display data does not meet the predetermined criteria" and "compressing the first display stream in response to selecting the first display stream" as recited by claim 1 and the similar features recited by claims 42 and 43. Accordingly, the proposed combination of Banks and Gupta fails to disclose or suggest each and every feature of independent claims 1, 42, and 43, as well as each and every feature of claims 2, 7, 9, 34 at least by virtue of their dependency from claim 1.

As a second issue, there is no motivation to combine the teachings of Banks and Gupta as proposed. As noted above, the Office asserts that the motivation for adding the processing taught by Gupta to the apparatus disclosed by Banks is to "obtain an apparatus that operates more efficiently by keeping data sent to a client synchronized." *Office Action*, p. 4. The Office alleges that Gupta teaches the desirability of synchronicity. Banks, however, fails to disclose or suggest any need or desire for synchronicity. Further, the Office Action fails to provide establish how the use of the teachings of Banks (which is directed to "automatically forwarding snapshots created from a compressed digital video stream") would be aided by Gupta's alleged goal of "operating more efficiently by keeping data sent to a client synchronized." In fact, not only does the Office Action fail to advance any theory or rationale, the modification of Banks in view of Gupta in fact fails to result in a more efficient operation as one of ordinary skill in the art will appreciate that the time-shifting synchronization approach of Gupta does not have direct application to the video delivery system of Banks.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 1-2, 7, 9, 34, 42, and 43 is improper. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Obviousness Rejection of Claims 10-12, 15-18, 22, 49-52, and 54

At page 4 of the Office Action, claims 10-12, 15-18, 22, 49-52, and 54 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Banks in view of Gupta and in further view of Bixby et al. (U.S. Patent No. 6,792,047). This rejection is respectfully traversed.

Claims 10-12, 15-18, and 22 depend from claim 1. As noted above, not only does the proposed combination of Banks and Gupta fail to disclose or suggest each and every feature of claim 1, there also is no motivation to combine Banks and Gupta as disclosed. Bixby fails to compensate for the deficiencies of Banks and Gupta with respect to claim 1. Accordingly, the proposed combination of Banks, Gupta and Bixby fails to disclose or suggest each and every feature recited by claims 10-12, 15-18, and 22 at least by virtue of their dependency from claim 1. Moreover, these claims recite additional novel features.

For example, claim 12 recites the features of "determining, for each display stream in the first plurality of display streams, whether an actual transmission time <u>for a video frame</u> matches a predicted transmission time." The Office Action asserts that Bixby teaches transmitted data "must be delivered to ensure that jitter is within the PCR time limits" and further asserts that "jitter is the difference between actual and estimated transmission times." *Office Action*, p. 4. The Applicant respectfully disagrees and submits that jitter is directed to individual data packets, and is not directed to the transmission of a video frame. Thus, the concern for ensuring jitter is within PCR time limits disclosed by Bixby is not the same as or equivalent to determining whether an actual transmission time for a video frame matches a predicted transmission time as provided by claim 12.

Independent claim 49 recites the features of:

determining whether a transmission of a data stream having a plurality of multimedia channels is expected to meet a predetermined criteria;
compressing at least one of the multimedia channels in the data stream to generate a first compressed data stream when the transmission of the data stream is not expected to meet a predetermined criteria; and
determining whether a transmission of the first compressed data stream is expected to meet the predetermined criteria.

With respect to claims 49-52 and 54, the Office Action states "claims . . . 49-52 and 54 differ from claim 1 in that claims . . . 49-52, and 54 further require matching a predicted transmission time with an actual transmission time." *Office Action*, p. 4. It was noted previously in the Response filed August 28, 2006, that the requirement of matching a predicted transmission time with an actual transmission time is not present in the claimed subject matter of claim 49. Further, it is noted that the Office Action fails to address the particular combination of features recited by claim 49 and therefore fails to establish a *prima facie* case of obviousness with respect to claims 49-52 and 54. *See M.P.E.P.* § 2143. Moreover, the proposed combination of Banks, Gupta, and Bixby fails to disclose or suggest each and every feature recited by claims 49-52 and 54. To illustrate, none of Banks, Gupta or Bixby discloses or suggests compressing at least one multimedia channel of a plurality of multimedia channels in a data stream to generate a compressed data stream and then determining whether the resulting compressed data stream meets a predetermined criteria as provided by claim 49. Accordingly, the proposed combination of Banks, Gupta, and Bixby necessarily fails to disclose or suggest these features. Further, as discussed above, there is no motivation to combine Banks and Gupta as proposed, and thus there is no motivation to combine Banks, Gupta, and Bixby as proposed.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 10-12, 15-18, 22, 49-52, and 54 is improper. Reconsideration and withdrawal of this rejection therefore is respectfully requested.

Obviousness Rejection of Claims 13, 14, 19-21, 23-33, 35-41, 44-48, and 53

At page 5 of the Office Action, claims 23-26, 28, 30-32, 35-36, 39-41, 44-48, and 53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Banks in view of Gupta, further in further view of Bixby, and further in view of Girod (U.S. Patent No. 6,480,541). At page 8 of the Office Action, claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Banks in view of Gupta, further in view of Bixby, and further in view of Norsworthy (U.S. Patent No. 6,144,402). At page 9 of the Office Action, claims 19-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Banks in view of Gupta further in view of Bixby, and further in view of Keren (U.S. Patent Application Publication No. 2001/0026491). At page 9 of the Office Action, claims 27, 29, 33, 37, and 38 are rejected under 35 U.S.C. § 103(a) as being

unpatentable over Banks in view of Gupta, in further view of Bixby, and further in view of Putzolu (U.S. Patent No. 6,584,509). These rejections are respectfully traversed.

Claims 35-41 have been canceled without prejudice or disclaimer, thereby obviating their rejection.

Claims 13, 14, 19-21, 23-26 and 30-32 depend from claim 1. Claims 44-48 depend from claim 43. Claim 53 depends from claim 49. As discussed above, Banks, Gupta, and Bixby, individually or in combination, fail to disclose at least one feature recited by each of claims 1, 43, and 49. Girod, Norsworthy, Keren, and Putzolu each fails to compensate for Banks, Gupta, and Bixby with respect to these claim features. Moreover, as discussed above, there is no motivation to combine Banks and Gupta, and thus there is no motivation for the proposed combinations of Banks, Gupta, Bixby, Girod, Norsworthy, Keren, and Putzolu. Accordingly, the combinations of Banks, Gupta, Bixby, Girod, Norsworthy, Keren, and Putzolu, in addition to having no motivation for their combination, fail to disclose or suggest each and every feature recited by claims 13, 14, 19-21, 23-26, 30-32, 44-48, and 53 at least by virtue of their dependency from one of claims 1, 43, or 49. Moreover, these claims recite additional novel features.

In view of the foregoing, it is respectfully submitted that the obviousness rejections of claims 13, 14, 19-21, 23-33, 35-41, 44-48, and 53 are improper. Reconsideration and withdrawal of these rejections therefore is respectfully requested.

Conclusion

The Applicant respectfully submits that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-1835.

Respectfully submitted,

/Ryan S. Davidson/   January 22, 2007
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